

REMARKS

INTRODUCTION

In accordance with the foregoing, the specification and claim 6 has been amended. Claims 1-14 are pending in the application. Reconsideration is respectfully requested.

OBJECTIONS TO THE DRAWINGS

The drawings were objected to under 37 CFR 1.83(a). Appropriate correction has been made to the drawings.

CHANGES TO THE SPECIFICATION

The specification has been changed to reflect the changes made to the drawings. No new matter has been added.

REJECTIONS UNDER 35 U.S.C. § 112

Claim 6 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Appropriate correction has been made to claim 6.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-14 were rejected under 35 U.S.C. 103(a) as being unpatentable over Namiki et al. (US 5,235,381) (hereinafter "Namiki") in view of Ide (US 4,586,813) (hereinafter "Ide").

Namiki discusses a rotation controlling apparatus including a spring clutch. A sheet supply roller 101 is mounted on a roller holder 102. The roller holder 102 is non-rotatably mounted on a sheet supply shaft 103. On the sheet supply shaft 103, there are mounted a rotatable input gear 105 rotated by an external driving system 104, and a boss 106 secured to the sheet supply shaft 103. The input gear 105 and the boss 106 are provided at the confronting ends with cylindrical extensions 105a and 106, and a spring 107 is mounted around these extensions with a slight gap therebetween. The spring 107 is so mounted that, when the input gear is rotated, the spring is contracted to be urged against the extensions. The other end of the spring is cocked radially outward, so that it is engaged by a control ring 108 extending between

around inner shoulders 105b, 106b or the input gear 105 and of the boss 106. The control ring 108 is provided at its peripheral surface with a pawl 108a by which a flapper 110 mounted on a solenoid 109 can be engaged. When the solenoid 109 is turned OFF, the flapper 110 is engaged by the pawl 108a, whereas, when the solenoid is turned ON, the flapper is disengaged from the pawl. Namiki, column 1, lines 10-47 and Figs. 10-13.

Ide discusses an image forming apparatus including a feed mechanism 8'. The feed mechanism 8' includes a feed roller 10 mounted on a rotating shaft 151 and a sleeve 152 mounted on the rotating shaft 151. The sleeve 152 is coupled to a transmission to which the driving force of a motor 21 is transmitted through a spring clutch 153. A projection 154 is formed on the inner surface of the sleeve 152, and projections 155 and 156 are formed on the outer surface of the sleeve 152 at a predetermined angular interval. Ide, column 10, lines 52-63 and Fig. 19.

Claims 1-6

Claim 1 recites "...a solenoid unit for supporting the housing and selectively on/off-controlled..." In contrast to claim 1, neither Namiki nor Ide discuss a solenoid for supporting the housing. In Namiki, the solenoid 109 does not support the roller holder 102. Namiki, Fig. 10. In Ide, the feed solenoid does not support the sleeve 152. Ide, Fig. 19.

Claims 2-6 are dependent on claim 1 and are therefore believed to be allowable for the reasons discussed above. Further, claims 2-6 recite features that patentably distinguish over Namiki and Ide, taken alone or in combination. For example, claim 2 recites that when a pair of the phase protuberances is projected on an outer periphery of the housing, for corresponding to a position of a switch member in its off-state that is changed by on/off operation of the solenoid unit.

Withdrawal of the foregoing rejection is requested.

Claims 7-10

Claim 7 recites "...a solenoid unit adapted to rotatably support the housing..." In contrast to claim 7, neither Namiki nor Ide discuss a solenoid unit adapted to rotatably support the housing. In Namiki, the solenoid 109 does not support the roller holder 102. Namiki, Fig. 10. In Ide, the feed solenoid does not support the sleeve 152. Ide, Fig. 19.

Claims 8-10 are dependent on claim 7 and are therefore believed to be allowable for the reasons discussed above. Further, claims 8-10 recite features that patentably distinguish over Namiki and Ide, taken alone or in combination. For example, claim 8 recites that the first phase protuberance and the second phase protuberance are on opposing sides of the housing surface.

Withdrawal of the foregoing rejection is requested.

Claims 11-14

Claim 11 recites "...a solenoid unit adapted to rotatably support the housing..." In contrast to claim 11, neither Namiki nor Ide discuss a solenoid unit adapted to rotatably support the housing. In Namiki, the solenoid 109 does not support the roller holder 102. Namiki, Fig. 10. In Ide, the feed solenoid does not support the sleeve 152. Ide, Fig. 19.

Claims 12-14 are dependent on claim 11 and are therefore believed to be allowable for the reasons discussed above. Further, claims 12-14 recite features that patentably distinguish over Namiki and Ide, taken alone or in combination. For example, claim 14 recites that the driving gear and clutch slip do not provide rotational force to the housing when the switch member engages a protuberance on the housing.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

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By: 
Gene M. Garner II
Registration No. 34,172

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501

AMENDMENTS TO THE DRAWINGS:

In the Office Action, at page 2, the Examiner objected to the drawings. In order to overcome these objections, replacement figures are submitted herewith. In FIGS. 2 and 3 a clutch 50 has been added. Approval of these changes to the Drawings is respectfully requested.